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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/597,576

Applicant(s)

HILDEBRAND ET AL.

Examiner

Ryan Stronczer

Art Unit

2425

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7-11 and 21-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-11 and 21-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments, see pages 7-8, filed 18 August 2010, with respect to the rejection(s) of claim(s) 1 and 25 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ohishi et al.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7, 25, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohishi et al. (US Pat. No. 5,909,257).

As to claims 1 and 25, Fig. 2 of Ohishi teaches the recited limitations of:

a tuner configured to tune to a radio frequency (RF) carrier frequency associated with an AV only transport associated with AV signals and an integrated transport associated with AV and data packets (Fig. 2, tuner 11);

a demodulator configured to demodulate the tuned transports for output to a switch (Fig. 2, demodulator & error correction 20 outputs to switch 14);

the switch configured to simultaneously separate the AV signals associated with the AV only transport from the AV and data packets associated

with the integrated transport (*switch 14 outputs the data stream to both program data analyzer 40 and demultiplexer 50*);

a data processor in communication with the switch and configured to separate the AV packets from the data packets included within the integrated transport (*The program data analyzer 40 obtains TV program titles according to the PSI data of a plurality of TV programs in the error-corrected bit streams (col. 6, lines 33-38)*);

a demultiplexer (*Fig. 2, demodulator 50*) **in communication with the switch** (*switch 14*) **and the data processor configured to process AV payloads both from the separate AV packets of the integrated transport and from the AV signals of the AV only transport** (*program data analyzer 40*), **wherein the AV signals of the AV only transport are received directly from the switch and wherein the AV packets associated with the integrated transport are received through a signaling pathway in which the switch outputs the integrated transport associated with the AV packets directly to the data processor and the data processor outputs the AV packets directly to the demultiplexer** (*see Fig. 2 and col. 7-8 where the switch is set to the a2 contact, short-circuiting the program data modifier 13 and thus is bypassed by the output of the program data analyzer 40*); and

a decoder in communication with the demultiplexer and configured to decode the AV payloads for output to a video port and an audio port (*col. 8: the demultiplexer 50 extracts these packets from the reproduced packets. The extracted*

packets are decoded by the decoder 60 to output video and audio analog signals. The analog signals are output from the output terminal 100 via adder 80 in STEP S9).

As to claims 7 and 29, Ohishi explicitly teaches that the decoder 60 taught by Fig. 2 is an MPEG-2 decoder. See, e.g., col. 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-10 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohishi as applied to claims 7 and 29 above, and further in view of Official Notice.

As to claims 8-10 and 30-32, Ohishi teaches that the decoder 60 of Fig. 2 is an MPEG-2 decoder, but does not explicitly teach the recited use of advance video compression (AVC) protocols (claims 8 and 30) wherein said AVC protocols include MPEG-4 (claims 9 and 31) or H.264 (claims 10 and 32). The Examiner takes Official Notice that all of the above protocols are obvious variants of the MPEG standard taught by Ohishi that would have been obvious to one of ordinary skill in the art at the time of the invention to implement as a matter of design choice and the use of which would not have produced any unexpected or unanticipated results. One of ordinary skill in the art

at the time of the invention would have recognized this as a combination of known elements in the art that would have yielded predictable results.

Claims 2, 3, 11, 22, 23, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohishi et al. as applied to claims 1 and 25 above, and further in view of Perlman (US Pat. No. 6,813,643).

As to claims 2 and 26, Ohishi discloses a tuner that receives, demodulates, and demultiplexes a received digital TV broadcasting signal (col. 1) and further receives supplementary information including program information data encoded with the AV signal; however, Ohishi does not explicitly disclose a baseline architecture as it is defined in the instant specification where "MPEG AV streams are carried directly over MPEG-2 transport and data packets are carried separately over a DOCSIS MPEG-2 transport such that different transport streams are associated with data and A/V packets" [0012]. In an analogous art, Perlman teaches a system for receiving and processing a multiplexed AV stream and associated data packets, including support for the DOCSIS standard. See, e.g., col. 3-4 (MPEG2 and DOCSIS are received separately depending on the type of content selected by the user). As DOCSIS was a well-known and widely-practiced standard for transmitting supplemental or non-video content in combination with standard video content at the time of the invention, it would have been obvious to modify the device of Ohishi to incorporate the DOCSIS support taught by Pearlman. One of ordinary skill in the art at the time of the invention would

have recognized this as a combination of known elements in the art that would have yielded predictable results.

As to claims 3 and 27, Ohishi teaches the apparatus of claims 1 and 25, and further teaches that the receiver can receive supplementary information including program information data encoded with the AV signal; however, Ohishi does not explicitly disclose an integrated transport that is associated with an extended mode 1 architecture as it is defined in the instant specification as "MPEG-2 AV transport packets are combined with DOCSIS data packets in a single DOCSIS MPEG -2 transport stream" [0036]. In an analogous art, Perlman teaches a system for receiving and processing a multiplexed AV stream and associated data packets, including support for the DOCSIS standard. See, e.g., col. 3, lines 41-62 (MPEG2 and DOCSIS share the QAM demodulation logic, which implies that they share the same/single stream and that MPEG and DOCSIS stream are combined). As DOCSIS was a well-known and widely-practiced standard for transmitting supplemental or non-video content in combination with standard video content at the time of the invention, it would have been obvious to modify the device of Ohishi to incorporate the DOCSIS support taught by Perlman. One of ordinary skill in the art at the time of the invention would have recognized this as a combination of known elements in the art that would have yielded predictable results.

As to claim 11, Perlman teaches the recited cable modem in communication with the processor for processing data packets (see col. 4).

As to claim 22, Perlman discloses teaches the recited limitation that **the baseline architecture consists of a scheme in which MPEG AV streams are carried directly**

over MPEG-2 transport and data packets are carried separately over a DOCSIS MPEG-2 transport such that different transport streams are associated with data and AV packets. See col. 3, lines 48-59 (MPEG 2 standard carries audio and video streams together while DOCSIS standard carries audio and video separately).

As to claim 23, Perlman discloses the limitation that **the extended mode 1 architecture consists of a scheme in which MPEG-2 AV transport packets are combined with DOCSIS data packets in a single DOCSIS MPEG-2 transport stream** See col. 5, lines 22-48 (DOCSIS and MPEG streams broadcast together over same transmission channel).

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Futamata (US Pat. No. 7,339,954) in view of Perlman (US Pat. No. 6,813,643).

Regarding claim 21, Futamata discloses an apparatus comprising:

a switch (fig. 2 (4)) configured to simultaneously route a first transport to a demultiplexer (fig. 2 (6)) and a second transport to a data processor (fig. 2 (12)), the first having packets with only AV payloads and the second transport having packets with AV payloads and other packets with data payloads (see fig. 2, a switch selects a signal from two signals inputted into the switch, therefore if two signals are being simultaneously received then clearly the switch simultaneously selects one of the signals, thereby simultaneously switching between two signals);

wherein the demultiplexer (fig. 2 (6)) is configured to process AV payloads on the first transport received directly from the switch (fig. 2 (4)) and AV payloads on the

second transport received through a signaling pathway in which the switch outputs the second transport directly to the data processor (fig. 2 (12)) and the data processor outputs the AV payloads on the second transport directly to the demultiplexer (see fig. 2, col. 7, lines 63-col. 9, line 16).

However, Futamata fails to specifically disclose wherein the data processor is configured to separate the AV payloads from the data payloads carried in the second transport and to output the AV payloads to the demultiplexer and the data payloads to a microprocessor such that the SVD is configured to simultaneously receive both of the first and second transport streams and to decode and process the associated AV and data payloads.

Perlman discloses wherein the data processor is configured to separate the AV payloads from the data payloads carried in the second transport and to output the AV payloads to the demultiplexer and the data payloads to a microprocessor such that the SVD is configured to simultaneously receive both of the first and second transport streams and to decode and process the associated AV and data payloads (see col. 3, lines 63-col. 4, line 10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system and method of Futamata to include data processor is configured to separate the AV payloads from the data payloads carried in the second transport and to output the AV payloads to the demultiplexer and the data payloads to a microprocessor such that the SVD is configured to simultaneously receive both of the first and second transport streams and

to decode and process the associated AV and data payloads as taught by Perlman for the advantage of allowing a user to concurrently watch multiple channels on a display.

Claims 4, 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohishi in view of Perlman to claims 1 and 25 above, and further in view of Chelehmal et al. (Pub. No. US 2002/0046406).

Regarding claims 4 and 28, the combined teachings of Ohishi and Perlman when viewed as a whole teach the apparatus of claims 1 and 25 and further disclose combining MPEG-2 and DOCSIS data packets (see above w/r/t claims 2-3 and 22-23), but do not explicitly disclose the recited extended mode 2 architecture, defined in the instant specification as where "MPEG-2 AV transport packets in RTP payloads over UDP over IP over DOCSIS are combined with DOCSIS data packets in a single DOCSIS MPEG-2 transport stream with the ability to also use other real-time protocols instead of RTP" [0036]. In an analogous art, Chelehmal discloses a transmission system in which the MPEG and DOCSIS data packets are combined utilizing the RTP or UDP protocols. See, e.g., Chelehmal at [0025-28] and [0033-38]. It would have been obvious to a person of ordinary skill in the art at the time of the invention modify the systems and methods of Ohishi and Perlman to include the integrated transport is associated with an extended mode 2 architecture as taught by Chelehmal for the advantage of playing back the audio/video contents.

As to claim 24, Chelehmal et al. discloses wherein the extended mode 2 architecture consists of a scheme in which MPEG-2 AV transport packets in RTP

payloads over UDP over IP over DOCSIS are combined with DOCSIS data packets in a single DOCSIS MPEG-2 transport stream with the ability to also use other real-time protocols instead of RTP (see paragraphs 0025-0028 and 0033-38).

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Stronczer whose telephone number is (571) 270-3756. The examiner can normally be reached on 7:30 AM - 5:00 PM (EDT), Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian T. Pendleton can be reached on (571) 272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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